

CS76-39

Molding and Trim; Hardwood, Interior

U. S. DEPARTMENT OF COMMERCE

HARRY L. HOPKINS, Secretary

NATIONAL BUREAU OF STANDARDS

LYMAN J. BRIGGS, Director

Bureau of Standards

**HARDWOOD INTERIOR TRIM
AND MOLDING**

COMMERCIAL STANDARD CS76-39

Effective Date for New Production, from October 25, 1939



A RECORDED STANDARD OF THE INDUSTRY

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1939

PROMULGATION
of
COMMERCIAL STANDARD CS76-39
for
HARDWOOD INTERIOR TRIM AND MOLDING

On December 15, 1938, at the instance of interested manufacturers, a preliminary conference was held at which a recommended commercial standard for hardwood interior trim and molding was adopted. The recommended standard was then submitted to a number of manufacturers, and to distributor and consumer organizations for comment, and later it was circulated to the industry for written acceptance. The trade has since accepted and approved for promulgation by the United States Department of Commerce, through the National Bureau of Standards, the standard as shown herein.

This standard is effective for new production from October 25, 1939.

Promulgation recommended.

I. J. Fairchild,
Chief, Division of Trade Standards.

Promulgated.

Lyman J. Briggs,
Director, National Bureau of Standards.

Promulgation approved.

Harry L. Hopkins,
Secretary of Commerce.

HARDWOOD INTERIOR TRIM AND MOLDING

COMMERCIAL STANDARD CS76-39

PURPOSE

1. This commercial standard provides a basis for the manufacture, distribution, and use of hardwood interior trim and molding, whereby the procurement of this material in universally recognized grades, designs, and sizes may be facilitated to the benefit of all concerned.

SCOPE

2. This standard provides minimum specifications for two grades of hardwood interior trim and molding known as "grade A," which is suitable for natural finish and highest quality paint finish, and "grade B," which is normally confined to a paint finish, of sizes and design as shown in the 7,000 Series, Appendix D of Simplified Practice Recommendation R16-29, effective November 1, 1932.¹ It covers allowable defects, design, length, width, bundling, and the grading tolerances for these requirements.

GENERAL REQUIREMENTS

3. All hardwood interior trim and molding sold as conforming to commercial standard grades shall be clear-face trim, except where characteristics of the wood and seasoning defects, as hereinafter specified, may be present in not to exceed 10 percent of any shipment. It shall be well manufactured in accordance with the following requirements.

4. *Seasoning.*—Material shall be kiln-dried according to accepted methods for the species in question to a moisture content not to exceed 10 percent when shipped from the mill. Because of the tendency of wood to change in moisture content with changes in atmospheric conditions, no specific percentage of moisture content can be guaranteed when the trim reaches its destination. Manufacturers shall exercise all possible care in the seasoning and handling of their products to assure delivery in suitable condition. The purchaser shall be responsible for the proper storing and handling of the material after it is received.

5. *Workmanship.*—All hardwood interior trim and molding sold as of commercial standard quality shall be smooth, straight, and well machined in accordance with good mill practice.

¹ Also published under the title "Standard Wood Moldings, 7,000 Series—Revised 1931" (pages 1 to 15, inclusive) by authority of the Central Committee on Lumber Standards

6. *Grading*.—All hardwood interior trim and molding shall be graded from the face side.

7. *Allowable characteristics*.—Those characteristics covered by member moldings, or covered when the stock is installed, and characteristics on the reverse side that do not impair its use shall be allowed.

DETAIL REQUIREMENTS

8. "*Grade A*."—The characteristics and seasoning defects allowed in any one piece shall be only as covered by not more than any two of the following paragraphs.

9. *Characteristics*.—

9a. *Sapwood*.—Sapwood shall be allowed in all items of hardwood interior trim and molding, except when made from cherry selected red birch, red gum, or unsteamed walnut. In these woods the sapwood shall not exceed 25 percent (surface measure) in the aggregate in any one piece and not more than 5 percent of the quantity of any one item (pattern, style, or total of same kind of units). This grade is suitable for natural and highest quality paint finishes.

9b. *Stain*.—Stain covering not more than 25 percent in any one piece (surface measure), and not more than 5 percent of the quantity of any one item, shall be allowed.

9c. *Streaks*.—Slight streaks shall be permitted in not more than 10 percent of the quantity of any one item.

9d. *Worm holes*.—Worm holes not larger than $\frac{1}{16}$ inch in diameter, and not more than one to each 3 linear feet, shall be allowed. Maximum quantity of material containing worm holes shall not exceed 5 percent of the quantity of any one item.

9e. *Knots*.—One knot, tight, sound and smoothly dressed, not to exceed $\frac{1}{2}$ -inch greatest diameter, in stock 6 feet long or less, and not more than two in stock over 6 feet long, shall be allowed. Maximum quantity of material containing knots shall not exceed 5 percent of the quantity of any one item. Burls that do not contain knots over $\frac{1}{8}$ inch in diameter or unsound centers shall not be considered a defect.

10. *Machine imperfections*.—Slight machine imperfections which can be eliminated by hand-sanding shall be allowed.

11. *Torn grain*.—A maximum depth of $\frac{1}{32}$ inch will be permitted on machine-run stock, in not over 10 percent of the length in any one piece and not more than 5 percent of the quantity of any one item.

12. *Seasoning defects*.—

12a. *End splits*.—End splits $\frac{1}{4}$ inch in length for each linear foot, or its equivalent, per piece will be allowed, except that where exact lengths are specified, stock shall be usable for the purpose intended, without waste.

12b. *Surface checks*.—Surface checks not to exceed $\frac{1}{32}$ inch wide, 1 inch long, and one check to each foot (surface measure), or its equivalent, per piece, shall be allowed. Maximum quantity of material containing surface checks shall not exceed 5 percent of the quantity of any one item.

12c. *Warp*.—Warped stock that will lie flat or straight with ordinary nailing shall be allowed.

13. "*Grade B*."—This grade shall be the same as "grade A," except that when sold and marked "grade B" there shall be no restriction as to sapwood and strain in any of the species, as this grade is normally confined to a paint finish.

DESIGNS AND SIZES

14. *Standard design and sizes.*—Shall conform to the 7,000 series American standard moldings as shown in Simplified Practice Recommendation R16-29, Appendix D, effective November 1, 1932.²

15. *Special design.*—Shall be: As per full size detail drawing (inside of line to govern); as per template (stock must fit flush, not tight at time of machining); or as per sample.

16. *Special sizes.*—Shall be as specified.

17. *Random lengths.*—Lengths 4 to 16 feet shall be counted on 6-inch breaks. Each shipment may contain not more than 20 percent of lengths under 8 feet. Five percent may consist of lengths under 6 feet.

18. A variation of 5 percent over or under the quantity ordered, in linear feet on random-length orders will be allowed. It shall be billed on the basis of the quantity shipped.

19. *Specified lengths.*—When specified lengths are ordered, all lengths up to and including 4 feet 6 inches shall be counted on 6-inch breaks. Example: Stock 3 feet 2 inches long will be counted as 3 feet 6 inches; 4 feet 6 inches long will be counted as 4 feet 6 inches. Lengths over 4 feet 6 inches shall be counted on 6-inch breaks, to which an additional 6 inches shall be allowed for cutting. Example: Stock 4 feet 7 inches long will be counted as 5 feet 6 inches; 7 feet long will be counted as 7 feet 6 inches.

20. *Tolerance.*—A variation in size of $\frac{1}{32}$ inch plus or minus will be allowed for all unsanded hardwood interior trim and molding, with an additional allowance of $\frac{1}{32}$ inch scant for machine sanding.

21. *Bundling.*—Molding shall be bundled and measured by averaging the lengths, which may vary 6 inches over or under the nominal length.

MEASUREMENT

22. Hardwood interior trim and molding shall be sold on a linear-foot basis.

INSPECTION

23. All hardwood interior trim and molding sold as conforming to the commercial standard rules is subject to inspection in the form and condition as received and complaints regarding any shipment shall be made within 10 days after receipt thereof.

24. Where the grade of any interior trim and molding shipment is in dispute and an inspection is demanded, the cost of such inspection, including unloading, reloading, and trucking, if any, shall be borne by the shipper and the shipment settled for on the basis of the inspection report if the shipment is more than 5 percent below grade.

25. If inspection establishes the shipment to be 5 percent or less below grade, the buyer pays the cost of inspection and pays for the shipment as invoiced.

26. If quantity is involved, inspection shall be made while the shipment is intact.

² See footnote 1.

CERTIFICATION

27. In order to assure the purchaser that he is receiving hardwood interior trim and molding of the quality specified, the Hardwood Dimension Manufacturers Association (Hardwood Interior Trim Division) in concert with producer members plans to issue certificates of grade as shown in figure 1, with invoices or with each bundle. Producers may individually grade and trade-mark each piece or bundle as conforming to the established standard.



FIGURE 1.—Facsimile of certificate of origin of the Hardwood Dimension Manufacturers Association.

[NOTE.—According to the sponsor, the origin of this product will be shown by the name of the manufacturer on the back of the certificate or by a serial number recorded with the Hardwood Dimension Manufacturers Association, Louisville, Ky.]

NOMENCLATURE AND DEFINITIONS

Burl.—A swirl or twist in the grain of the wood which occurs near a knot but does not contain a knot over $\frac{1}{8}$ inch in diameter.

Characteristics.—Any natural marking or injury which occurs in wood altering the uniformity of its appearance, such as knots, stain, and worm holes.

Check.—A lengthwise separation of the wood, the greater part of which occurs across the rings of annual growth. A surface check is a check occurring on the surface of a piece.

Defect.—Any irregularity occurring in or on wood that may lower its strength, durability, or utility values.

Hardwoods.—The botanical group of trees that, with a few exceptions, comprise all the broadleaved species. The term has no reference to the actual hardness of the wood. Angiosperms is the botanical name for hardwoods.

Kiln dried.—Dried by artificial heat to a moisture content which is less than can normally be obtained through the natural process commonly known as air seasoning.

Knot.—A branch or limb embedded in the tree which has been cut through in the process of manufacture.

Sound knot.—A knot which is solid across its face and is as hard as the surrounding wood and shows no indications of decay.

Tight knot.—A knot which is so fixed by growth or position that it will firmly retain its place in the piece.

Moisture content of wood.—Weight of the water contained in the wood expressed in percentage of the weight of the oven-dry wood.

Sapwood.—The layers of wood next to the bark, usually lighter in color than the heartwood.

Split.—A lengthwise separation of the wood by reason of the tearing apart of the wood cells.

Stain.—A discoloration, occurring on or in wood, of any color other than the natural color of the piece on which it appears.

Streak.—Streak is a discoloration caused by an accumulation of gumlike substance or chemical change within the wood.

Torn grain means that a part of the wood is torn out in dressing.

Warp.—Any variation from a true or plane surface.

Worm holes.—Voids in the wood caused by the burrowing action of certain wood-infesting worms, which, of course, do not survive the kiln-drying process.

EFFECTIVE DATE

The standard is effective for new production from October 25, 1939.

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Each association nominated its own representatives. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Division of Trade Standards, National Bureau of Standards, which acts as secretary for the committee.

Manufacturers:

F. W. GIRDNER (chairman), Bradley Lumber Sales Co., Warren, Ark.

H. L. GRAY, The Meadow River Lumber Co., Rainelle, W. Va.

JOHN W. McCLURE, National Hardwood Lumber Association, 2408 Buckingham Bldg., Chicago, Ill.

HAROLD S. CROSBY, Northern Hemlock & Hardwood Manufacturers Association, Oshkosh, Wis.

LOUIS J. BOSSE, Hardwood Dimension Manufacturers Association, Heyburn Bldg., Louisville, Ky.

Distributors:

DWIGHT HINCKLEY, Dwight Hinckley Lumber Co., Cincinnati, Ohio. Representing National-American Wholesale Lumber Association, Inc.
National Wholesale Lumber Distributing Yards. Invited to name representative.
National Retail Lumber Dealers Association. Invited to name representative.
Mississippi Valley Lumber Institute. Invited to name representative.
Middle Atlantic Lumbermen's Association. Invited to name representative.

Users:

THEODORE IRVING COE, Structural Service Dept., American Institute of Architects, 1741 New York Ave., Washington, D. C.
JARRETT C. WHITE, Stoneleigh Courts, Washington, D. C. Representing the American Institute of Architects.
L. S. CLARK, Twin City Hardwood Lumber Co., 501-517 Cleveland Ave. N. Minnesota Transfer, St. Paul, Minn. Representing National Association of Purchasing Agents.
E. W. MACY, Technical Division, Federal Housing Administration, Washington, D. C.

HISTORY OF PROJECT

On November 25, 1938, the Hardwood Dimension Manufacturers Association requested the cooperation of the National Bureau of Standards in the establishment of a commercial standard for hardwood interior trim and molding and submitted a tentative draft based on grading rules previously issued by the Hardwood Interior Trim Manufacturers Association. As a result of several preliminary meetings, the draft was revised to bring it into harmony with present manufacturing practice and was then submitted to producers and to distributor and consumer organizations for review and comment. After the requirements were harmonized and adjusted so that the draft represented the composite views of all interested groups, the recommended commercial standard was circulated on July 21, 1939, to the industry for written acceptance.

Upon receipt of official acceptances, estimated to represent a satisfactory majority of the production volume, and in the absence of active valid opposition, a circular letter, dated September 25, 1939, announced that Commercial Standard CS76-39 was effective for new production from October 25, 1939.

ACCEPTANCE OF COMMERCIAL STANDARD

This sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this commercial standard.

Date

Division of Trade Standards,
National Bureau of Standards,
Washington, D. C.

Gentlemen:

Having considered the statements on the reverse side of this sheet, we accept the Commercial Standard CS76-39 as our standard of practice in the

Production ¹

Distribution ¹

Use ¹

of hardwood interior trim and molding.

We will assist in securing its general recognition and use and will cooperate with the standing committee to effect revisions of the standard when necessary.

Signature of individual officer

(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer

Company

(Fill in exactly as it should be listed)

Street address

City and State

¹ Please designate which group you represent by drawing lines through the other two. Please file separate acceptances for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial standards are commodity specifications voluntarily established by mutual consent of the industry. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the industry as a whole, their provisions through usage soon become established as trade customs and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of commercial standards is to establish, for specific commodities, nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard, and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the commercial standard, where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of commercial standards on a Nation-wide basis is fourfold: First, to act as an unbiased coordinator to bring all branches of the industry together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvas and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and, fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by companies representing a satisfactory majority of production, the success of the project is announced. If, however, in the opinion of the standing committee of the industry or the Department of Commerce the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations and individuals listed below have accepted these grading rules as their standard of practice in the production, distribution, and use of hardwood interior trim and molding. Such endorsement does not signify that they may not find it necessary to deviate from the standard, nor that producers so listed guarantee all of their products in this field to conform with the requirements of this standard. Therefore, specific evidence of quality certification should be obtained where required.

ASSOCIATIONS

- American Specification Institute, Chicago, Ill.
 Associated General Contractors of America, Inc., The, Washington, D. C.
 Carolina Lumber & Building Supply Association, Charlotte, N. C. (In principle.)
 Central Ohio Lumber Institute, Columbus, Ohio.
 Douglas Fir Plywood Association, Tacoma, Wash. (In principle.)
 Hardwood Dimension Manufacturers' Association, Louisville, Ky.
 Mid-Northern Woodwork Association, Davenport, Iowa.
 Mississippi Retail Lumber Dealers' Association, Inc., Jackson, Miss.
 National-American Wholesale Lumber Association, New York, N. Y. (In principle.)
 National Association of Purchasing Agents, The, New York, N. Y.
 National Hardwood Lumber Association, Chicago, Ill.
 National Lumber Manufacturers' Association, Washington, D. C. (In principle.)
 New York Lumber Trade Association, Inc., New York, N. Y.
 Northeastern Lumber Manufacturers' Association, Inc., New York, N. Y.
 Northern Hemlock & Hardwood Association, Oshkosh, Wis.
 Ohio Association of Retail Lumber Dealers, Xenia, Ohio.
 Southern Cypress Manufacturers' Association, Jacksonville, Fla.
 Southern Hardwood Producers, Inc., Memphis, Tenn. (In principle.)
- Allison & Allison, Los Angeles, Calif.
 Anderson-Tully Co., Memphis, Tenn.
 Andrews Lumber Co., C. E., New Bethlehem, Pa.
 Atlanta Oak Flooring Co., Atlanta, Ga.
 Auburn Wood Products, Inc., Auburn, N. Y.
 Auler, Jensen & Brown, Oshkosh, Wis.
 Baltimore Lumber Co., Baltimore, Md.
 Baxter & Co., C. B., Kansas City, Mo.
 Beeson, Carroll O., Crawfordsville, Ind.
 Bennett-Bailey Lumber Co., Minneapolis, Minn.
 Berger, F. E., & R. L., Kelley, Champaign, Ill.
 Bial, George F., Hasbrouck Heights, N. J.
 Bickford, Robert Turner, Elmira, N. Y.
 Bishop, Horatio W., Los Angeles, Calif.
 Black Lumber Co., J. W., Corning, Ark.
 Blatter, Rudolph H., Washington, D. C.
 Blithe, Wesley Leshner, Philadelphia, Pa.
 Bogner, Harry, Milwaukee, Wis.
 Borland Lumber Co., Oil City, Pa.
 Bradley Lumber Co. of Arkansas, Warren, Ark.
 Bradley Lumber Sales Co., Warren, Ark.
 Brainerd, Harry B., New York, N. Y.
 Brazier, Clarence W., New York, N. Y.
 Briggs Lumber & Manufacturing Co., Chas. A., Scottdale, Pa.
 Bristol Door & Lumber Co., Bristol, Tenn.
 Brown, W. J., Cedar Rapids, Iowa.
 Brown Dimension Co., Manistique, Mich.
 Bruce Co., E. L., Memphis, Tenn.
 Brust, Peter, Milwaukee, Wis.
 Buechner & Orth, St. Paul, Minn. (In principle.)
 Burritt Lumber Sales Co., The, Bridgeport, Conn.
 Byron Sash & Door Co., Inc., Louisville, Ky.
 Cameron Lumber Co., Inc., Newburgh, N. Y.

FIRMS

- A One Building Material Co., Inc., Evansville, Ind.
 Adams-Edgar Lumber Co., Morton, Miss.

- Camp Plywood Co., Inc., E. W., Indianapolis, Ind.
 Candela, Rosario, New York, N. Y.
 Cannon & Mullen, Salt Lake City, Utah.
 Carder, Macon O., Amarillo, Tex.
 Carlander, Guy A., Amarillo, Tex.
 Carroll, John, Atlantic City, N. J.
 Chapin, Rollin C., Minneapolis, Minn.
 Charlottesville Lumber Co., Inc., Charlottesville, Va.
 Cherry River Boom & Lumber Co., Philadelphia, Pa.
 Child, Harry C., Sayre, Pa.
 Childs & Smith, Chicago, Ill.
 Coit, E., New York, N. Y.
 Conrad & Cummings, Binghamton, N. Y.
 Conrad Lumber Co., De Land, Fla.
 Conrow, H. S., Wichita, Kans. (In principle.)
 Cooper Wholesale Lumber, W. E., Los Angeles, Calif.
 Crossett Lumber Co., Crossett, Ark.
 Cunningham, Harry Francis, Washington, D. C.
 Davis Hardwood Co., San Francisco, Calif.
 Deal Curtis Lumber Co., Drifton, Fla.
 DeJarnette, Charles W., Des Moines, Iowa.
 Denby, Edwin H., New York, N. Y.
 Derrick & Gamber, Inc., Detroit, Mich.
 DeSoto Hardwood Flooring Co., Memphis, Tenn.
 di Cristina & Son, J., San Francisco, Calif.
 Disbrow & Co., Cheyenne, Wyo.
 District of Columbia, Government of the, Washington, D. C.
 Dodge & Morrison, New York, N. Y.
 Dykes Lumber Co., New York, N. Y.
 Elliott Hardwood Co., Inc., Potsdam, N. Y.
 Elsasser, Fred A., Union, N. J.
 Emery Industries, Inc., Cincinnati, Ohio.
 Emory River Lumber Co., The, Lansing, Tenn.
 English, Harold T., Hutchinson, Kans.
 Estes Lumber Co., Birmingham, Ala.
 Everett & Associates, H. F., Allentown, Pa.
 Farr, Albert, & J. Francis Ward, San Francisco, Calif.
 Farrin Lumber Co., M. B., Cincinnati, Ohio.
 Flannagan, Eric G., Henderson, N. C.
 Flint & Broad, Dallas, Tex.
 Florida-Louisiana Red Cypress Co., Jacksonville, Fla.
 Foltz & Son, Herbert, Indianapolis, Ind.
 Fordyce-Crossett Sales Co., Crossett, Ark., and Fordyce, Ark.
 Forsyth Hardwood Co., San Francisco, Calif.
 Frey Planing Mill Co., The, Louisville, Ky.
 Frost Lumber Industries, Inc., Shreveport, La.
 Gaertner, Otto, New York, N. Y.
 Gamble Dimension Sales Co., Inc., Louisville, Ky.
 General Millwork Corp., Utica, N. Y.
 Gilchrist, Edmund B., Philadelphia, Pa.
 Goodman Lumber Co., Goodman, Wis. (In principle.)
 Hallberg & Beersman, Chicago, Ill.
 Hannaford & Sons, Samuel, Cincinnati, Ohio.
 Harper & West, Boston, Mass.
 Hasness, Carlisle D., Harrisburg, Pa.
 Helfensteller, Hirsch & Watson, St. Louis, Mo.
 Henrich's Sons Co., Wm., Buffalo, N. Y.
 Higgins Lumber Co., J. E., San Francisco, Calif.
 Hillyer-Deutsch-Edwards, Inc., Oakdale, La.
 Himmelberger-Harrison Manufacturing Co., Cape Girardeau, Mo.
 Hinkley Lumber Co., Dwight, Cincinnati, Ohio.
 Hodgdon & Son, Charles, Chicago, Ill.
 Hofmann-Olsen Export Lumber Co., Inc., T., New Orleans, La.
 Hoyt, Price & Barnes, Kansas City, Mo.
 Holsman & Holsman, Chicago, Ill.
 Hopkins, Albert Hart, Buffalo, N. Y.
 Hunter Lumber Co., Chillicothe, Ill.
 Hunting Lumber Co., R. D., Cedar Rapids, Iowa.
 Hurd Lumber Co., Detroit, Mich.
 Illinois, University of, Dept. of Architecture, Urbana, Champaign, Ill. (In principle.)
 Interior Woodwork Co., Milwaukee, Wis.
 Jamme, Bernard E., Summit, N. J.
 Jefferson Wood Products Co., Jefferson, Wis.
 Johnson, Keplar B., Seattle, Wash.
 Johnson Lumber Co., Inc., Charles, Rochester, N. Y.
 Jones Hardwood Co., San Francisco, Calif.
 Karcher, Walter T., & Livingston Smith, Philadelphia, Pa.
 Keen Coal & Supply Co., Batavia, Ohio.
 Keene & Simpson, Kansas City, Mo.
 Kenwood Corporation, Beverly, W. Va., and Louisville, Ky.
 Kilpatrick Bros., Inc., Oklahoma City, Okla.
 Kingsbury, Frederick, Cambridge, Mass.
 Klipstine Lumber & Supply Co., The, Sidney, Ohio.
 Korn, Co., The, Sumter, S. C.
 Kotcher Lumber Co., Detroit, Mich.
 Kyle, Herbert S., Charleston, W. Va. (In principle.)

Lake Washington Shipyards, Houghton, Wash.
 Larrick, Tom, Lawrence, Kans.
 Lawrence, Holford & Allyn, Portland, Oreg.
 Levy, Will, St. Louis, Mo.
 Lewis Lumber Co., Asbury Park, N. J.
 Liberty Lumber & Manufacturing Co., Inc., Erwin, Tenn.
 Lightsey Bros., Miley, S. C.
 Little & Russell, Boston, Mass.
 Loeb, Laurence M., White Plains, N. Y.
 Long Bell Lumber Co., The, De Ridder, La.
 Los Angeles, City of, Los Angeles, Calif.
 Lounsbury & McCrory Lumber Co., Chicago, Ill.
 Lumber Dealers Supply Co., Denver, Colo.
 Lyman-Hawkins Lumber Co., The, Akron, Ohio.
 Mabrey, George R., New York, N. Y.
 MacCornack, Walter R.—Donald A. MacCornack, Cleveland, Ohio.
 Mac Lea Lumber Co., The, Baltimore, Md.
 Madary's Planing Mill, Fresno, Calif.
 Manley & Young, Knoxville, Tenn.
 Mann & Co., Hutchinson, Kans. (In principle.)
 Markland Contracting Co., M. B., Atlantic City, N. J.
 Martin & Son, A. Oscar, Doylestown, Pa.
 Mason & Co., George D., Detroit, Mich.
 Mauran, Russell, Crowell & Mullgardt, St. Louis, Mo.
 McCracken & McCall, Inc., Lexington, Ky. (In principle.)
 McMinnville Manufacturing Co., McMinnville, Tenn.
 Meadow River Lumber Co., The, Rainelle, W. Va.
 Michigan Pole & Tie Co., Newberry, Mich.
 Miller Bros. Co., Inc., Johnson City, Tenn.
 Mills, Rhines, Bellman & Nordhoff, Inc., Toledo, Ohio.
 Montague Millwork Co., Richmond, Va.
 Moore, Alvin Roger, Atlanta, Ga.
 Morgan Millwork Co., Baltimore, Md.
 Mundie-Jensen-Bourke & Havens, Chicago, Ill.
 National Wood Works, Sioux City, Iowa.
 New Castle Products, New Castle, Ind.
 Newellton Hardwood Co., Inc., Newellton, La.
 Nickey Bros., Inc., Memphis, Tenn.
 Northern Lumber Co., Billings, Mont.
 Officer, Gwynn, Berkeley, Calif.
 Owen Co., R. C., Hopkinsville, Ky.
 Pacific Lumber Co., The, San Francisco, Calif. (In principle.)

Pancoast, Russell T., Miami Beach, Fla.
 Pardee & Curtin Lumber Co., Clarksburg, W. Va.
 Pease Woodwork Co., Inc., Cincinnati, Ohio.
 Peers & McGlone, Pine Bluff, Ark.
 Phoenix Box & Lumber Co., The, Toledo, Ohio.
 Plunkett-Webster Lumber Co., Inc., New Rochelle, N. Y.
 Proudfoot-Rawson-Brooks & Borg, Des Moines, Iowa. (In principle.)
 Rather, Jr., J. T., Houston, Tex.
 Reid, Jr., William H., Billings, Mont.
 Rib Lake Lumber Co., Rib Lake, Wis.
 Rindge & Rindge, Grand Rapids, Mich.
 Rittenhouse & Embree Co., Chicago, Ill.
 Ritter Lumber Co., W. M., Columbus, Ohio.
 Robbins Flooring Co., Rhinelander, Wis.
 Robert & Co., Inc., Atlanta, Ga.
 Roberts Corporation, U. N., Davenport, Iowa.
 Rohrer Lumber Co., D. J., Clintonville, Wis.
 Rose & Co., D. M., Knoxville, Tenn.
 Rowley & Sons, Inc., Fred C., Hammond, Ind.
 St. Paul & Tacoma Lumber Co., Tacoma, Wash.
 Schirmer, R. F., Woodhaven, N. Y.
 Schoeppe, Edward, Philadelphia, Pa.
 Schraufnagel & Sons, M., Butternut, Wis.
 Schroeder Hardwood Lumber Co., Alexander, Houston, Tex.
 Schulzke, William H., Moline, Ill.
 Schwing Lumber & Shingle Co., Inc., Plaquemine, La.
 Sears, Roebuck & Co., Chicago, Ill.
 Shaver, Chas. W., Salina, Kans.
 Shenk, Co., Henry, Erie, Pa.
 Sidells, Arthur F., & Ellis M. Keppel, Warren, Ohio.
 Sirrine & Co., J. E., Greenville, S. C.
 Smith, Hinchman & Grylls, Inc., Detroit, Mich.
 Sothman Co., The, Grand Island, Nebr.
 Spahn & Rose Lumber Co., Dubuque, Iowa.
 Specification Record, Chicago, Ill.
 Standard Lumber & Supply Co., Fort Wayne, Ind.
 Stephenson Co., I., Wells, Mich.
 Stotzel, Ralph E., Chicago, Ill.
 Strable Hardwood Co., Oakland, Calif.
 Stravs, Carl B., Minneapolis, Minn.
 Swan Lake Moulding Co., Klamath Falls, Oreg.
 Sweet's Catalog Service, New York, N. Y. (In principle.)
 Taylor, Ellery K., Philadelphia, Pa.
 Taylor, Henry L., St. Petersburg, Fla.
 Taylor, Edward Cray, & Ellis Wing Taylor, Los Angeles, Calif.

Tendal Lumber Co., Waverly, Madison Parish, La.
 Tennessee Lumber & Coal Corporation, Oneida, Tenn.
 Thompson Lumber Co., Minneapolis, Minn.
 Tomlinson, Webster, Joliet, Ill.
 Twin City Hardwood Lumber Co., St. Paul, Minn.
 Vallamont Planing Mill Co., Williamsport, Pa.
 Virginia Polytechnic Institute, Blacksburg, Va.
 Voorhees, Walker, Foley & Smith, New York, N. Y.
 Walsh, Louis A., Waterbury, Conn. (In principle.)
 Warren Lumber Co., The, Fort Morgan, Colo.
 Washington Woodworking Co., Inc., Washington, D. C.
 Weaver, Rudolph, Gainesville, Fla.
 Welch, Carroll E., Huntington, N. Y.
 Western Hardwood Lumber Co., Los Angeles, Calif.
 Wheeler-Osgood Sales Corporation, Tacoma, Wash.
 Whissel Lumber Co., Inc., L. N., Buffalo, N. Y.
 Whittier Lumber & Millwork Co., Newark, N. J.
 Wiles-Chipman Lumber Co., St. Louis, Mo.

Willatsen, Andrew, Seattle, Wash.
 Williams, Coile & Pipino, Newport News, Va.
 Williamson Co., E. H., Elkins, W. Va.
 Willson, Fred F., Bozeman, Mont.
 Wilson Lumber Co. of Florida, Perry, Fla.
 Wischmeyer, Wm. F., St. Louis, Mo.
 Wood Products Magazine, Chicago, Ill. (In principle.)
 Wright, Frank H., Detroit, Mich. (In principle.)
 Yawkey-Bissell Lumber Co., White Lake, Wis.
 Zenith Mill & Lumber Co., Oakland, Calif.
 Zoller & Muller, New York, N. Y.

U. S. GOVERNMENT

United States Department of Agriculture, Bureau of Agricultural Chemistry & Engineering, Washington, D. C.
 Federal Works Agency, Public Buildings Administration, Washington, D. C. (In principle.)
 Federal Works Agency, United States Housing Authority, Washington, D. C. (In principle.)
 Treasury Department, Washington, D. C.
 Veterans' Administration, Washington, D. C.
 War Department, Washington, D. C.

COMMERCIAL STANDARDS

CS No.	Item
0-39.	Commercial standards and their value to business (second edition).
1-32.	Clinical thermometers (second edition).
2-30.	Mopsticks.
3-38.	Stoddard solvent (second edition).
4-29.	Staple porcelain (all-clay) plumbing fixtures.
5-29.	Steel pipe nipples.
6-31.	Wrought-iron pipe nipples (second edition).
7-29.	Standard weight malleable iron or steel screwed unions.
8-33.	Gage blanks (second edition).
9-33.	Builders' template hardware (second edition).
10-29.	Brass pipe nipples.
11-29.	Regain of mercerized cotton yarns.
12-40.	Fuel oils (5th edition).
13-39.	Dress patterns (second edition).
14-39.	Boys' button-on waists, shirts, junior and polo shirts (made from woven fabrics) (second edition).
15-29.	Men's pajamas.
16-29.	Wallpaper.
17-32.	Diamond core drill fittings (second edition).
18-29.	Hickory golf shafts.
19-32.	Foundry patterns of wood (second edition).
20-36.	Staple vitreous china plumbing fixtures (second edition).
21-39.	Interchangeable ground-glass joints, stopcocks, and stoppers (fourth edition).
22-30.	Builders' hardware (nontemplate).
23-30.	Feldspar.
24-30.	Standard screw threads.
25-30.	Special screw threads.
26-30.	Aromatic red cedar closet lining.
27-36.	Mirrors (second edition).
28-32.	Cotton fabric tents, tarpaulins, and covers.
29-31.	Staple seats for water-closet bowls.
30-31.	Colors for sanitary ware.
31-38.	Wood shingles (fourth edition).

CS No.	Item
32-31.	Cotton cloth for rubber and pyroxylin coating.
33-32.	Knit underwear (exclusive of rayon).
34-31.	Bag, case, and strap leather.
35-31.	Plywood (hardwood and eastern red cedar).
36-33.	Fourdriner wire cloth (second edition).
37-31.	Steel bone plates and screws.
38-32.	Hospital rubber sheeting.
39-37.	Wool and part wool blankets (second edition).
40-32.	Surgeons' rubber gloves.
41-32.	Surgeons' latex gloves.
42-35.	Fiber insulating board (second edition).
43-32.	Grading of sulfonated oils.
44-32.	Apple wraps.
45-38.	Douglas fir plywood (domestic grades) (third edition).
46-36.	Hosiery lengths and sizes (second edition).
47-34.	Marking of gold-filled and rolled-gold-plate articles other than watch cases.
48-34.	Domestic burners for Pennsylvania anthracite (underfeed type).
49-34.	Chip board, laminated chip board, and miscellaneous boards for bookbinding purposes.
50-34.	Binders' board for bookbinding and other purposes.
51-35.	Marking articles made of silver in combination with gold.
52-35.	Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze).
53-35.	Colors and finishes for cast stone.
54-35.	Mattresses for hospitals.
55-35.	Mattresses for institutions.
56-36.	Oak flooring.
57-36.	Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings.
58-36.	Woven elastic fabrics for use in overalls (overall elastic webbing).

CS No.	Item	CS No.	Item
59-39.	Woven dress fabrics—testing and reporting (second edition).	63-38.	Liquid hypochlorite disinfectant.
60-36.	Hardwood dimension lumber.	69-38.	Pine oil disinfectant.
61-37.	Wood-slat venetian blinds.	70-38.	Coal tar disinfectant (emulsifying type).
62-38.	Colors for kitchen accessories.	71-38.	Cresylic disinfectants.
63-38.	Colors for bathroom accessories.	72-38.	Household insecticide (liquid spray type).
64-37.	Walnut veneers.	73-38.	Old growth Douglas fir standard stock doors.
65-38.	Wool and part-wool fabrics.	74-39.	Solid hardwood wall paneling.
66-38.	Marking of articles made wholly or in part of platinum.	75-39.	Automatic mechanical-draft oil burners.
67-38.	Marking articles made of karat gold.	76-39.	Hardwood interior trim and molding.
		77-39.	Sanitary cast-iron enameled ware.

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice in their industry may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington, D. C.



